

ABSTRACT OF THE DISCLOSURE

A Packet Core Function (PCF) and method of consistently selecting a Packet Data Service Node (PDSN) from a plurality of PDSNs in a packet data network to host a data session for a Mobile Node (MN). In a first embodiment, a static lookup table in the PCF is used to associate a list of identifiers for MNs and a list of the plurality of PDSNs in the network. The PCF obtains an identifier for the MN and utilizes the lookup table and a hash function to associate the identifier for the MN with a PDSN. The PDSN is then selected by the PCF to host the data session for the MN. In another embodiment, the PCF also includes a cache timer and a cache memory that stores the identifier for the MN and the IP address of the selected PDSN for a predetermined time period following the handoff of the MN to another PCF. If the MN returns to the PCF within the predetermined period of time, the PCF reselects the same PDSN to host the data session. In another embodiment, following the initial selection of a PDSN to host the data session, the IP address of the PDSN is sent to the MN which then passes the IP address of the PDSN to any subsequent PCFs where the MN roams. A PDSN zone ID may be utilized in lieu of the full IP address.

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